

DOCKET NO.: ABMS-0119/B000330  
Application No.: 09/810,810  
Office Action Dated: May 8, 2003

PATENT

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently amended) A method for controlling a recloser for a three-phase electrical power line, comprising:  
monitoring the three phases of the power line;  
determining a number of faults in the three phases; and  
opening a number of the phases on the power line responsive to the determined number of faults, wherein the fault occurs when a protection element on the recloser enters pickup; and  
if only one fault is determined, then monitoring the fault to determine if the fault evolves into another phase, and if so, opening all three phases of the recloser.

2. (Cancelled)

3. (Original) The method according to claim 1, wherein determining a number of faults in the three phases comprises comparing a line current through each of the three phases to a predetermined current, a fault occurring on one of the phases when the line current on the associated phase exceeds the predetermined current.

4. (Original) The method according to claim 1, wherein determining a number of faults in the three phases comprises:  
detecting a fault in at least one of the three phases;  
starting a countdown timer associated with each faulted phase; and  
determining the number of faults still present after one of the associated countdown timers has expired.

5. (Cancelled)

6. (Original) The method according to claim 1, wherein opening a number of phases responsive to the determined number of faults comprises opening only one phase if only one fault is determined, the only one phase being associated with the fault, and opening all three phases if more than one fault is determined.

7. (Currently amended) A recloser control system for a three-phase electrical power line, comprising:

a recloser having three poles, each pole corresponding to an associated one of the three phases of the power line and being capable of opening or closing the associated phase of the power line; and

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a recloser controller coupled to the recloser for controlling the setting of the poles depending on the line current appearing in the phases on the power line, one pole opening the associated phase of the power line if the line current on only the associated phase exceeds an associated predetermined current, and all poles opening all the associated phases of the power line if the line current on more than one phase exceeds the associated predetermined current, and if only one fault is present, then monitoring the fault to determine if the fault evolves into another phase, and if so, opening all three phases of the recloser.

8. (Original) The recloser control system according to claim 7, wherein the recloser controller monitors the three phases of the power line and determines a number of phases in which the line current exceeds the associated predetermined current, wherein controlling the setting of the poles is responsive to the determined number of phases in which the line current exceeds the associated predetermined current.

9. (Original) The recloser control system according to claim 7, wherein the recloser controller comprises a countdown timer for determining whether a phase that has entered a pickup state should be tripped.

10. (Currently amended) A computer-readable medium having computer-executable instructions for performing steps comprising:

monitoring three phases of a three-phase electrical power line;

determining a number of faults in the three phases; ~~and~~

opening a number of the phases on the power line responsive to the determined number of faults, comprising opening only one phase if only one fault is determined, the only one phase being associated with the fault, and opening all three phases if more than one fault is determined; and

if only one fault is determined, then monitoring the fault to determine if the fault evolves into another phase, and if so, opening all three phases of the recloser.

11. (Original) The computer-readable medium according to claim 10, wherein determining a number of faults in the three phases comprises comparing a line current through each of the three phases to a predetermined current, a fault occurring on one of the phases when the line current on the associated phase exceeds the predetermined current.

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12. (Original) The computer-readable medium according to claim 10, wherein determining a number of faults in the three phases comprises:

- detecting a fault in at least one of the three phases;
- starting a countdown timer associated with each faulted phase;
- determining the number of faults still present after one of the associated countdown timers has expired.

13. (Cancelled)

14. (New) The method according to claim 1, further comprising controlling the recloser to at least one of trip, reclose, and lockout responsive to the fault being detected on one phase independently, two phases sequentially, or three phases simultaneously.

15. (New) The recloser control system according to claim 7, wherein the recloser controller controls the recloser to at least one of trip, reclose, and lockout responsive to the fault being detected on one phase independently, two phases sequentially, or three phases simultaneously.

16. (New) The computer-readable medium according to claim 10, further comprising computer-executable instructions for controlling the recloser to at least one of trip, reclose, and lockout responsive to the fault being detected on one phase independently, two phases sequentially, or three phases simultaneously.

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